

### Abstract of the Disclosure

Embodiments of a compression/decompression (codec) system may include a plurality of parallel data compression and/or parallel data decompression engines designed for the reduction of data bandwidth and storage requirements and for compressing/decompressing data. The plurality of compression/decompression engines may each implement a parallel lossless data compression/decompression algorithm. The codec system may split incoming uncompressed or compressed data up among the plurality of compression/decompression engines. Each of the plurality of compression/decompression engines may compress or decompress a particular part of the data. The codec system may then merge the portions of compressed or uncompressed data output from the plurality of compression/decompression engines. The codec system may implement a method for performing parallel data compression and/or decompression designed to process stream data at more than a single byte or symbol at one time. A codec system may be integrated in a processor, a system memory controller or elsewhere within a system.